WHAT IS CLAIMED IS:

1. A method for extracting a face position, comprising steps of:

preparing digital data of a value of each pixel within an object image region including a region of a human face;

extracting in said object image region position of a Between-the-Eyes candidate point through a filtering process with a Between-the-Eyes detecting filter in which six rectangles are connected; and

extracting a portion of said object image in a prescribed size which has the extracted position of said Between-the-Eyes candidate point at a center, and selecting a true candidate point from said Between-the-Eyes candidate points in accordance with a pattern discriminating process.

2. The method for extracting a face position according to claim 1, wherein

said Between-the-Eyes detecting filter is one rectangle divided into six segments.

3. The method for extracting a face position according to claim 1, wherein

said six rectangles includes

two first rectangles adjacent to each other in a vertical direction,

two second rectangles displaced relative to said first rectangles by a prescribed amount in said vertical direction, and adjacent to each other in said vertical direction, and

two third rectangles displaced relative to said second rectangles by a prescribed amount in said vertical direction, and adjacent to each other in said vertical direction.

4. The method for extracting a face position according to claim 1, wherein

said step of selecting a true candidate point includes steps of

detecting positions of eyes through a pattern discriminating process

5 with respect to said object image that corresponds to prescribed two rectangles among rectangles forming said Between-the-Eyes detecting filter,

correcting the position of said Between-the-Eyes candidate point to a middle point between two eyes based on said detected positions of the

10 eyes,

rotating an input image around said corrected position of Between-the-Eyes candidate point such that the two eyes are aligned horizontally, and

extracting from said rotated input image a portion of said object

15 image in a prescribed size which has the corrected position of said Between-the-Eyes candidate point at a center, and selecting a true candidate point from said Between-the-Eyes candidate points in accordance with a pattern discriminating process.

5. The method for extracting a face position according to claim 1, wherein

said step of preparing digital data includes a step of preparing said object image as a stereo image, and

5 said step of selecting a true candidate point includes a step of selecting a true candidate point from said Between-the-Eyes candidate points in accordance with a distance to said Between-the-Eyes candidate point from an observation point that is detected based on said stereo image.

6. A program product for causing a computer to execute a method for extracting a face position within an object image region, said program product causing said computer to execute steps of:

preparing digital data of a value of each pixel within an object

5 image region including a region of a human face;

extracting in said object image region position of a Between-the-Eyes candidate point through a filtering process with a

Between-the-Eyes detecting filter in which six rectangles are connected;
and

10   extracting a portion of said object image in a prescribed size which
has the extracted position of said Between-the-Eyes candidate point at a
center, and selecting a true candidate point from said Between-the-Eyes
candidate points in accordance with a pattern discriminating process.

        7.   The program product according to claim 6, wherein
said Between-the-Eyes detecting filter is one rectangle divided into
six segments.

        8.   The program product according to claim 6, wherein
said six rectangles includes
two first rectangles adjacent to each other in a vertical direction,
two second rectangles displaced relative to said first rectangles by a
5   prescribed amount in said vertical direction, and adjacent to each other in
said vertical direction, and
        two third rectangles displaced relative to said second rectangles by
a prescribed amount in said vertical direction, and adjacent to each other in
said vertical direction.

        9.   The program product according to claim 6, wherein
said step of selecting a true candidate point includes steps of
detecting positions of eyes through a pattern discriminating process
with respect to said object image that corresponds to prescribed two
5   rectangles among rectangles forming said Between-the-Eyes detecting
filter,
        correcting the position of said Between-the-Eyes candidate point to
a middle point between two eyes based on said detected positions of the
eyes,
10   rotating an input image around said corrected position of
Between-the-Eyes candidate point such that the two eyes are aligned
horizontally, and

extracting from said rotated input image a portion of said object
image in a prescribed size which has the corrected position of said
15   Between-the-Eyes candidate point at a center, and selecting a true
candidate point from said Between-the-Eyes candidate points in accordance
with a pattern discriminating process.

10.   The program product according to claim 6, wherein
said step of preparing digital data includes a step of
preparing said object image as a stereo image, and
said step of selecting a true candidate point includes a step of
5   selecting a true candidate point from said Between-the-Eyes
candidate points in accordance with a distance to said Between-the-Eyes
candidate point from an observation point that is detected based on said
stereo image.

11.   An apparatus for extracting a face position, comprising:
an imaging unit preparing digital data of a value of each pixel
within an object image region including a region of a human face;
an extracting unit extracting in said object image region position of
5   a Between-the-Eyes candidate point through a filtering process with a
Between-the-Eyes detecting filter in which six rectangles are connected;
and
a selecting unit extracting a portion of said object image in a
prescribed size which has the extracted position of said Between-the-Eyes
10   candidate point at a center, and selecting a true candidate point from said
Between-the-Eyes candidate points in accordance with a pattern
discriminating process.

12.   The apparatus for extracting a face position according to claim
11, wherein
said Between-the-Eyes detecting filter is one rectangle divided into
six segments.

13. The apparatus for extracting a face position according to claim 11, wherein

said six rectangles includes

two first rectangles adjacent to each other in a vertical direction,

two second rectangles displaced relative to said first rectangles by a prescribed amount in said vertical direction, and adjacent to each other in said vertical direction, and

two third rectangles displaced relative to said second rectangles by a prescribed amount in said vertical direction, and adjacent to each other in said vertical direction.

14. The apparatus for extracting a face position according to claim 11, wherein

said selecting unit includes

an eye detecting unit detecting positions of eyes through a pattern discriminating process with respect to said object image that corresponds to prescribed two rectangles among rectangles forming said Between-the-Eyes detecting filter,

a correcting unit correcting the position of said Between-the-Eyes candidate point to a middle point between two eyes based on said detected positions of the eyes,

a rotating unit rotating an input image around said corrected position of Between-the-Eyes candidate point such that the two eyes are aligned horizontally, and

a discriminant process unit extracting from said rotated input image a portion of said object image in a prescribed size which has the corrected position of said Between-the-Eyes candidate point at a center, and selecting a true candidate point from said Between-the-Eyes candidate points in accordance with a pattern discriminating process.

15. The apparatus for extracting a face position according to claim 11, wherein

said imaging unit includes

a preparing unit preparing said object image as a stereo image, and

5   said selecting unit includes

a select processing unit selecting a true candidate point from said Between-the-Eyes candidate points in accordance with a distance to said Between-the-Eyes candidate point from an observation point that is detected based on said stereo image.